

## Student Learning Outcomes

### ACRT-2009

#### Five College Learning Outcomes:

**1. Written, Oral and Visual Communication:** *Communicate effectively in writing, orally and/or visually using traditional and/or modern information resources and supporting technology.*

**2. Scientific and Quantitative Reasoning:** *Locate, identify, collect, and organize data in order to then analyze, interpret or evaluate it using mathematical skills and/or the scientific method.*

**3. Critical Thinking:** *Differentiate between facts, influences, opinions, and assumptions to reach reasoned and supportable conclusions.*

**4. Problem Solving:** *Recognize and identify the components of a problem or issue, look at it from multiple perspectives and investigate ways to resolve it.*

**5. Information Literacy:** *Formulate strategies to locate, evaluate and apply information from a variety of sources - print and/or electronic.*

#### I. Degrees and Certificates

##### 1. What degrees and certificates does your discipline offer?

A.S. in Master Collision Repair

Certificate of Achievement

Skills Certificates in Mechanical and Electrical Components, Nonstructural Damage Repair, Painting and Refinishing and Structural Damage Repair.

##### 2. Keeping in mind the five College Learning Outcomes above as well as what your discipline specifically requires of your graduating students, what should students be able to do when they have completed your discipline's requirements for each degree or certificate?

Assess the damage a car sustained in a collision and solve the problem of repair using critical thinking skills. Formulate strategies to locate, evaluate and apply information from shop manuals, textbooks and computer based information. Students will be able to mix paint using quantitative reasoning, mathematical skill and the scientific method. Students will mix paints by mass, ratio and volume measurements. Students will be able to read and understand repair work orders. They will be able to write statements documenting additional work required in the field. Students will verbally communicate with employers, customers and insurance agents while working in the field of auto repair.

##### 3. How do students in your program demonstrate that they meet each of the college-wide learning outcomes? What courses, activities, and/or projects are students required to complete that relate to each outcome?

###### i. Written, Oral and Visual Communication

Throughout the school year the Auto Collision Repair program accepts vehicles to be worked on through the Car Club. Students practice dealing with customers and meet requirements for industry standards. Students read and write repair orders, visually inspect vehicles for primary and secondary damage and orally communicate with car owners and insurance companies.

###### ii. Scientific and Quantitative Reasoning

Students are able to mix paints following all EPA and health & safety standards. They understand the chemical makeup and proper mixing ratios of the paint so they can use the scientific method to determine paint temperatures and which reduces, activators, accelerators, retarders, flex additive and fish eye eliminator to use for different environmental conditions.

###### iii. Critical Thinking

Students will be able to assess primary and secondary damage to vehicles. They will use critical thinking skills to determine the best and most economical procedures for beginning repairs on the vehicle.

#### **iv. Problem Solving**

Students will be able to use problem solving skills to determine how to repair structural and non structural damage to an automobile. They will also be able to evaluate the finish and set up a plan repair procedure.

#### **v. Information Literacy**

Students will be able to read and evaluate repair orders, service bulletins, shop manuals and computer based software.

### **II. General Education:**

#### **1. Does your discipline offer any classes which count for general education requirements?**

No

#### **2. Which General Education courses in your discipline address the each of the five College Learning Outcomes? Please list courses for each of the following:**

##### **i. Written, Oral and Visual Communication**

##### **ii. Scientific and Quantitative Reasoning**

##### **iii. Critical Thinking**

##### **iv. Problem Solving**

##### **v. Information Literacy**

### **III. Course Level Outcomes:**

#### **1. Do all of your Course Outlines of Record include Student Learning Outcomes? If not, are you revising them?**

Yes. All of our course outlines and syllabi include student learning outcomes.

#### **2. What percentage of faculty members in your discipline include SLOs in their course syllabi?**

100%

#### **3. Assessment:**

##### **i. How often do you assess these SLOs?**

We review our course offerings annually with our Advisory Committee. The committee makes recommendations to align course objectives to SLO's.

#### **3. Assessment:**

##### **ii. In the last two years every discipline developed SLOs specifically related to College Learning Outcome #3: Critical Thinking. Have you assessed this or any of the stated Student Learning Outcomes in your course outlines over the last year? If so, please summarize the results.**

We have incorporated critical thinking into all of our courses in the ACRT program. Students use critical thinking and problem solving skills during a vehicle repair. They use a variety of techniques and materials. Instructors assess how they complete their projects and think through the repair process safely and effeciently.

#### **3. Assessment:**

##### **iii. What improvements have you made or do you plan to make in the future?**

We have added SLO's to all of our syllabi and we will continue to integrate critical thinking, problem solving and inquiry approach to all labratory exercises. Students

will evaluate the extent of the vehicle damage and determine if it is feasible to repair the vehicle or declare it as non repairable.

**3. Assessment:****iv. What do you plan to assess this year? Who will you assess? How will you assess?**

We plan to focus on problem solving. We will teach students how to evaluate collision repair problems and solve them in the most cost effective manner while remaining conscious of environmental and safety issues. We will assess through written examination and lab work.